03050205-010 (Edisto River)

General Description

Watershed 03050205-010 is located in Bamberg, Orangeburg, Dorchester, and Colleton Counties and consists primarily of the *Edisto River* and its tributaries, from its origin to Cattle Creek. The watershed occupies 80,651 acres of the Lower Coastal Plain region of South Carolina. The predominant soil types consist of an association of the Rains-Lynchburg-Goldsboro-Johnston-Lumbee series. The erodibility of the soil (K) averages 0.20; the slope of the terrain averages 1%, with a range of 0-2%. Land use/land cover in the watershed includes: 0.14% urban land, 11.83% agricultural land, 7.63% scrub/shrub land, 0.43% barren land, 60.15% forested land, 19.68% forested wetland (swamp), and 0.14% water.

The headwaters of the Edisto River are formed from the confluence of the North Fork Edisto River and the South Fork Edisto River near the Town of Bamberg. This section of the Edisto River accepts drainage from Betty Branch (Staley Branch, Mill Branch), Broad Branch, Pen Branch, Brier Creek, Bush Branch, and Box Branch. There are a total of 112.7 stream miles in this watershed, all classified FW.

Water Quality

Station #	Type	Class	Description
E-013	P	FW	EDISTO RIVER AT US 78, W OF BRANCHVILLE
E-013A	W	FW	EDISTO RIVER AT US 21

Edisto River - There are two monitoring sites along this section of the Edisto River. At the upstream site (E-013), aquatic life uses are partially supported due to occurrences of copper in excess of the aquatic life acute standards, compounded by a significant increasing trend in turbidity. Significant decreasing trends in five-day biochemical oxygen demand and total phosphorus and total nitrogen concentrations suggest improving conditions for these parameters. Recreational uses are fully supported, but there is a significant increasing trend in fecal coliform bacteria concentration. At the downstream site (E-013A), aquatic life and recreational uses are fully supported. This is a blackwater system, characterized by naturally low pH and dissolved oxygen concentrations. Although pH excursions were noted at both sites, they were typical of values seen in such systems.

A fish consumption advisory has been issued by the Department for mercury and includes the streams within this watershed (see advisory p.31).

Permitted Activities

Point Source Contributions

RECEIVING STREAM
FACILITY NAME
PERMITTED FLOW @ PIPE (MGD)
COMMENT

EDISTO RIVER
TOWN OF BRANCHVILLE
PIPE #: 001 FLOW: 0.15
PIPE #: 001 FLOW: 0.60 (PROPOSED)

TYPE LIMITATION

NPDES#

SC0047333 MINOR MUNICIPAL EFFLUENT EFFLUENT PEN BRANCH
TOWN OF BRANCHVILLE
PIPE #: 001 FLOW: 0.15
WQL FOR NH3-N, DO, TRC, BOD5

SC0021113 MINOR MUNICIPAL WATER QUALITY

Mining Activities

MINING COMPANY
MINE NAME
MINERAL

PALMETTO SAND COMPANY 0401-38
BRANCHVILLE MINE #1 SAND

Growth Potential

There is a low to moderate potential for growth in this watershed. The Town of Branchville is located in the center of the watershed with U.S. Highway 78 and a rail line connecting it to the Towns of Bamberg and St. George, and U.S. Highway 21 and another rail line connecting it to the City of Orangeburg. The infrastructure is in place, but census data shows a 37% decline in population over the last decade.